THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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THE BOARD OF AGRICULTURE REPORTS, 1911.

This annual volume of reports is, as always, full of interest and value to veterinarians. As usual, it consists of two main sections—the report of the Chief Veterinary Officer and that of the Assistant Secretary, Animals Division, with a variety of appendices, statistical tables, and maps attached. Mr. Stockman's report is subdivided into two—a general report and a laboratory report, The latter we reserve for future notice, and here only summarise the former.

Mr. Stockman reviews the year's work against five scheduled diseases, viz., foot-and-mouth disease, swine fever, glanders, anthrax, and sheep-scab. Recent events render the first subject especially interesting, and some valuable pages are devoted to it. A complete history of every outbreak in 1911 is given, special attention being paid to the origin of each. Six of the nineteen outbreaks were apparently independent ones, due to the importation of infection from the Continent. The others were secondary to these two, and the Chief Officer's analysis of the whole series shows how exhaustive the Board's enquiry into the sources of infection must have been.

Swine fever showed a great increase from the previous year's figures; and this, also, we reserve for future reference. Glanders, on the other hand, showed a very marked decrease; and here Mr. Stockman has some interesting observations regarding the mallein test. The results it has given, and its infinite superiority as regards practicability, lead him to prefer mallein to the undoubtedly very valuable test of "complement fixation," now in great favour upon the Continent; and, while pointing out how greatly mallein has already aided us, he adds that it has never yet been used so vigorously and extensively as it might be. Possibly its use may be pushed a little further before long.

Anthrax is an interesting subject; for this report covers the first year's working of the Anthrax Order of 1910. Mr. Stockman is well satisfied with it, and certainly makes out a strong case in its favour. But the change it introduced was so great, and one possible effect will be so difficult to determine, that it would be well not to be too sanguine over the apparent results of the first year's work. Before leaving anthrax we must note one really remarkable fact—that 80 per cent. of the outbreaks in 1911 occurred on previously clean farms.

Sheep scab is still decreasing—rather slowly, but still with gratifying steadiness. And that concludes a general report which is even more interesting than usual, and should be read by every veterinary surgeon.

CARDIAC DISEASE IN THE HORSE.

By E. WALLIS HOARE, F.R.C.V.S.

Towards the end of Nov., 1910, I was requested by an Army officer residing in England, to examine a grey gelding, four years old, as to soundness.

On Nov. 24th the animal, a valuable well-bred hunter, was sent to town for examination. The owner stated that the horse had recently suffered from a severe "cold," was still coughing and unfit to be galloped. This proved to be the case, so the examination of the wind was deferred.

On Dec. 17th the horse was again sent in, and, according to the owner, was now fit to gallop. As the distance was only six miles, and as the animal's respirations were rather accelerated for such a slight degree of exertion, I did not consider he was fit for examination, moreover he had a slight cough, a dropsical swelling on the region of the sternum, a slight swelling of the sheath, and a temperature of 101° F.

I advised that he should be taken home at a slow pace, but he had hardly reached the end of the street when he commenced to stagger, and very nearly fell down. He was brought back to the yard, and on examination I was surprised to find that he had an almost imperceptible pulse, a very faint cardiac impulse, a distinct jugular pulse, and on auscultation there were evidences of marked cardiac disorder, and the presence of a loud booming sound which seemed to occlude the cardiac sounds. The animal was admitted to the infirmary for treatment.

Dec. 19th. The swelling on the sternal region had increased in extent and become harder. The jugular pulse was well marked, especially when the head was depressed; on auscultation there was great difficulty in distinguishing the cardiac sounds, and the abnormal sound already mentioned was very loud, while the cardiac impulse was faint. The animal was put on a combination of Ferri et ammonia cit., Pot. iod. and P. nux vomica.

Dec. 20th. The jugular pulse was intermittent, ceasing for a few minutes and then appearing with greater vigour and extending the entire length of the vein. The cardiac sounds became more distinct and the first sound was accompanied by a loud blowing murmur, the second sound was weaker than normal, and frequently reduplicated. The pulse was very weak and irregular, and of a soft character, the jugular pulsation was synchronous with the cardiac beats. The cardiac impulse became slightly stronger, but the action of the heart was very irregular and also intermittent. On placing the hand over the cardiac region a slight

fremitus was detected. The respirations were only slightly increased in frequency, and the appetite was good. The swelling in sternal region and sheath disappeared slowly.

Dec. 22nd. Cardiac sounds more distinct, palpitation occurred at intervals, blowing murmur was still well marked, also jugular pulse. Animal given gentle walking exercise. No distress.

Dec. 24th. No change, pulse still soft and weak, but cardiac impulse slightly stronger. Owner called and insisted on taking the horse home. He was warned of the danger of any exertion, and a long rest was advised.

Nothing further was heard of the case, beyond the fact that the purchaser was very anxious to get the horse, as the owner told him the animal had quite recovered. However, I advised that such a horse would not be a safe purchase, so after many regrets on both sides the "deal was off." Towards the end of 1911, the owner called to pay his account, and kindly informed me that my opinion was totally incorrect; that the horse had no heart disease, that he had put him to work ploughing during the spring and lately sold him at a good figure, and that since then the animal was resold to an officer and was hunted regularly and was perfectly sound.

This closes the first act in the drama.

Act II. commenced last week, when on Aug. 17th I was requested by an officer to attend immediately a horse of his that had fallen down suddenly while being ridden. On attendance I did not at first recognise my former patient who was now six years old and had grown into a fine horse. The history given was that a short time previously the horse had fallen down in a similar manner, that he had been hunted all the previous season and gave the greatest satisfaction, and had been lately on grass. As the result of the fall the animal had wounded the mucosa of the upper lip and chipped off portion of a tooth.

To outward appearances he looked perfectly healthy with the exception of a very slight swelling behind the sternum and in the sheath. But on examination the pulse was so weak at the jaw that it could not be counted; a distinct jugular pulsation was present, and on ausculation a loud blowing murmur was found accompanying the first cardiac sound. Marked palpitation of the heart was also present.

The history given was that while the horse was being ridden by the owner at a walking pace, he suddenly stopped, commenced to breathe hard, then neighed vigorously and fell down. On the owner mentioning the breeding of the horse and the locality from which he was purchased, I had no difficulty in deciding that the animal was my former patient. I suggested a consultation with Capt. H. Ryan, A.V.C., on the case, so on Aug. 17th, after a careful examination, we had the horse trotted a few times, on the square outside the stables. The animal soon showed signs of distress, staggered in a helpless manner, neighed loudly, raised the head and staggered backwards, then appeared to lose control of the hind limbs, next staggered forwards, the respirations were laboured, and after a minute or two the animal fell helpless on her side and groaned, the visible mucous membranes were bloodless, and the pulse imperceptible. In about five minutes the horse got up without any assistance but still appeared dazed: in a short time he was able to walk without staggering. We advised destruction which was immediately carried out.

I made a post mortem at 4 p.m. same day and the result was as follows: On opening the thoracic cavity the heart was seen to be enormously enlarged. A moderate amount of fluid was present in the pericardial sac. The heart was carefully removed and examined. The organ was spherical in shape, and weighed 24 lb., and showed marked general hypertrophy. The cardiac muscle was very firm and on the left side showed an extraordinary degree of thickness. The mitral valve was extensively thickened and its surface covered with very small calcareous projections, its edges were also thick, and the chordae tendineae were greatly increased in thickness and resembled firm cords. The tricuspid valve was thicker than normal and on its surface a few calcareous projections were found. The stomach contained a moderate amount of ingesta; the villous mucous membrane showed catarrhal gastritis, and a number of minute erosions.

Remarks.—The above case is interesting, as it shows that a horse suffering from a cardiac lesion may go through severe exertion without showing any appreciable symptoms. Probably had this horse been examined as to soundness during the period in which he was hunted the cardiac affection would not have been detected. I may mention that when purchased he was not examined by a V.S.; probably this was fortunate, unless the practitioner were one who made a point of examining the heart on all occasions. As regards the gastritis, no symptoms of this condition were present; it may have been due to an impaired circulation in the gastric mucosa. Some authors state that cardiac diseases are of rare occurrence in the horse. I cannot agree with this view, as post mortem experience leads me to a different conclusion. It is more correct to state that cardiac diseases are seldom diagnosed in this animal. Similar remarks apply to affections of the stomach, liver and kidneys. The symptoms are obscure, or are attributed to other causes, and we get out of the difficulty by saying that such affections are of rare occurrence. When more attention is paid to post mortem examinations and when veterinary pathologists devote more time to the elucidation of problems in connection with "common or garden" diseases, then clinical medicine will advance, and it will be found that affections now described as of rare occurrence, are in reality far more common than is imagined.

In connection with chloroform anæsthesia the question of cardiac disease is an important one, as although fatalities from this source are comparatively rare, they occur with sufficient frequency to put us on our guard. I have frequently observed alarming symptoms to occur during even a moderate degree of chloroform anæsthesia, and I attribute these to the existence of a cardiac affection. Quite recently I had a fatality in the case of a 6-year-old mare in the best of condition; the operation was for quittor, but after 5 minutes of chloro-

form inhalation, respiration and cardiac action ceased simultaneously. The autopsy showed extreme dilatation of the right ventricle, the walls of which were like a sheet of thin paper, and fatty degeneration was also present.

The diagnosis of cardiac affections in the horse will probably always be a source of great difficulty. One has only to use the stethescope on a number of apparently healthy horses to observe the variations that exist in the cardiac sounds. In animals of a nervous disposition it will often be found that the mere manipulation necessary will induce a condition of palpitation that might easily be mistaken for disease. As in all other matters in connection with diagnosis and the recognition of the alterations produced by disease, it is essential to be first acquainted with normal structure and function. Hence the importance of practical anatomy and applied physiology to the veterinary practitioner.

I am convinced that the student in his first year should be taught thoroughly the surface anatomy of the horse and other animals, the situation of the various organs, the principles and practice of auscultation and percussion on *healthy* animals, and that physiology should go hand in hand with anatomy. In other words he should be taught everything in connection with healthy structures before he studies the effects produced by disease. How much more useful this would prove in after life than the cramming with "biology," which subject is forgotten as soon as the examination is passed—and probably with no loss, except time, so far as the practical education of the student is concerned.

THE THYROID AND PARATHYROIDS.

By Henry Gray, M.R.C.V.S.

Mr. J. F. D. Tutt is to be commended for recording his experience of removing the thyroids in the goat and horse. His experience, however, is not exceptional, for it agrees with that of every other author who has performed double thyroidectomy on those animals, as well as on the other *adult* herbivora and the adult pig. It is quite another matter when double thyroidectomy is carried out on the dog, cat, fox, other carnivora, monkeys, man, etc., and in very *young* or suckling pigs, kids, young rabbits and birds, in which it produces trophic disturbance and a strychnine-like intoxication or tetany. In the young suckling animals it arrests development and produces cretinism. It has a negative effect on the *adult* rabbit, fowl and pigeon, and also in the lamb.

Excision of the *thyroids*, leaving behind the parathyroids, in *young* animals produces *trophic disturbance.*

Excision of the *parathyroids*, leaving behind the thyroids, produces an *intoxication of the nervous system*, resembling that set up by strychnine. Moussu established the duality of function of these two bodies. The thyroid presides over development during early age and growth; and the parathyroids preserve the nervous system against the influence of a toxic substance.

Each thyroid gland is accompanied by at least two parathyroids, one of which is superficial or external and the other situated on the internal face of the thyroid.

These parathyroids are extremely small, and should not be confounded with the *accessory thyroid* glands, which are merely isolated or aberrant lobules of the thyroid.

In the dog the parathyroids are in the form of small, mostly flattened brownish bodies, of the size of a pin head. Although they are usually easy to discover and to isolate, that is when they are superficially placed, they are at times hidden in the substance of the thyroids and therefore difficult to unearth. In this latter respect thoy resemble the islands of Langerhans in the pancreas.

Accessory thyroid glands are frequently observed in the dog, in the course of the jugular furrow, at the entrance of the thorax, and even between the two layers of the mediastinum. They are very mobile and may be worked readily up and down the neck when outside the chest cavity. In some breeds, especially the Yorkshire terrier, they become intermittently enlarged after "a chill" They are not rarely encountered in several members or generations of the same family. This subject should interest students of principles of heredity, especially of the Mendelian school.

Enlargement of the thyroids is not infrequently encountered as an enzoötic in young suckling puppies, about three to five weeks old, notably in such breeds as the Toy-Yorkshire, French bull-dog, Fox-terrier, Aberdeen terrier. It often destroys several of the litter before attention is drawn to it. It seems to destroy life by suffocation. Its cause is not known, and several enzoötics may occur at the same time but in different localities. The glands reach a tremendous size, even to that of a fowl's egg. Dog owners rarely recognise the seat of trouble, and it is only when they bring the first dead pup or pups for post mortem examination that they learn to recognise that "worms," to which they had attributed death, were not the cause, nor the intestine the seat of the malady.

The lamb also is subject to an enzoötic form of thyroiditis. Malignant disease of the thyroids and also parathyroids are at times encountered. G. Petit in 1906 described a case of generalised cancer derived from the parathyroid glands in the dog. Erdheim, Weichselbaum, and others, in 1903-1906, described adenomata of the parathyroid which were in reality adenoma of the accessory thyroids in man.

A cystic condition of the thyroid, or perhaps of the tissues in proximity to this gland is usually seen in large breeds of dogs, such as the Irish woolhound, Deerhound, Borzoi, Great Dane. It may attain a great size, and partial removal only bring about a recurrence. Its complete removal should not be undertaken without great circumspection on account of the profuse hæmorrhage entailed, which if not rapidly arrested would certainly lead to death.

Of 60 dogs deprived of both thyroids by Schiff in 1859, 59 succumbed. Probably the exception had *accessory thyroids*, which would explain it. One gland, however, removed from an adult is not attended with fatal results, unless the animal succumb from rapid and profuse hæmorrhage during the operation. Personally I have not yet encountered a death from hæmorrhage, but have been alarmed during the operation.

Double thyroidectomy in adult dogs seems to produce fatty degeneration of the liver and kidney; these may ultimately undergo atrophic changes, resembling somewhat those seen in Bright's disease, or atrophic nephritis. The apparent relationship between the thyroid and the kidney should attract the attention of the canine practitioner, whose patients so often suffer from degenerative changes of the liver, kidney, etc. The other lesions of experimental thyroidectormy are well known. It would be interesting to know the ages of the experimental dogs, on which the above eonclusions were drawn. If they were aged it is possible for an error to have crept in. Experimental physiologists and pathologists cannot always determine if their animals are free from disease or infection before they commence proceedings. It is a question whether these kidney and liver lesions were caused by double thyroidectomy or were merely coincident with the operation?

Thyroid grafting, which is somewhat difficult to obtain, preserves animals against death after thyroidectomy. This transplantation has been made in the peritoneum, between the peritoneum and abdominal aponeurosis, in muscles of the neck, etc. It does not give definite immunity in consequence of the atrophic changes the transplanted gland undergoes, resulting from an insufficient blood supply. If portions only of the gland are used they become intimately connected with the economy of the body and therefore give permanent immunity.

Thyroid grafting has been carried out in human surgery, especially by Kocher of Berne. On the Continent there exist young people willing to sell one half of one of their healthy thyroids for a sum of money. In *exophthalmic goitre* a portion of one of the enlarged glands is removed. I have encountered several people (women) who have undergone this treatment, which, although it has improved their condition, has not always removed the exophthalmos.

Excision of the thyroids has been carried out for 10 or 12 years on the goat and sheep for the manufacture of an anti-thyroid serum for exophthalmic goitre (Graves' disease). The animals are not bled until six weeks or so after the thyroidectomy. The serum is preserved with 5 per 1,000 of phenol. It has been said that milk of thyroidless animals gives good results.

Exophthalmic goitre is the opposite condition of myxœdema, which is treated with thyroid extract, which was introduced by Bouchard and Murray, and has since done signal service in practical medicine. The thyroidless serum, which has been for several years an article of commerce, is only indicated in exophthalmic goitre, which is rarely encountered—perhaps rarely recognised—in our animals. Several cases, however, have been reported, occurring in the horse, dog, and ox.

Thyroid extract is indicated chiefly in thyroid deficiency, but has also, like other agents, been given in various diseases with success. Practical therapy, however, is often a gamble resembling "pitch and toss."

On the functions of the thyroid and parathyroid, G. Moussu, Professor of Bovine Pathology has done fruitful work. His researches were published in a monograph in 1097.

Prescribers of thyroid extract should be careful of the efficacy of this agent, for I have used some that was absolntely useless, although coming from a reputed firm. Change of the make lead to rapid improvement of the patient, which had retrogressed under another make, after a rapid improvement from a good sample from another firm.

I would like to point out that there are many organic preparations, vegetable and animal, on the market that are absolutely useless, whereas other makes give every success. It is difficult to estimate the worthlessness of many agents in cases where *vis medicatrix naturæ* is in play; but when one comes to cases in which there should be a specific effect ftom certain "genuine" drugs one can then find out their uselessness.

Many drugs are condemned when in reality it is not the name of the drug that is in fault but the material sold under that name. For instance, I can get from one firm a conc. infusion of stavesacre that will keep well and destroy lice, and from another firm a material going under the same name that goes mouldy very quickly and will not destroy lice.

ABSTRACTS FROM FOREIGN JOURNALS

A Case of Chylous Ascites in the Cat, due to Coccidiosis.

Poénaru and Georgesco report the result of their observations of and experiments upon a case of ascites in a cat. By puncturing the abdomen they obtained a considerable quantity of a lactescent liquid, having the aspect of milk of the best quality. The cat was kept under observation for about a month, during which period regular examinations of the blood and the ascitic liquid were made; the animal meanwhile becoming more and more emaciated, and finally cachetic. In the end a post-mortem examination was obtained. The observations made therefore fall under two heads, viz., those carried out during life, and the results of the autopsy.

Microscopical examination of the ascitic liquid showed that it contained a large quantity of granular polynuclear leucocytes having the aspect of pus corpuscles, some mononuclear leucocytes, and some desquamative cells and red corpuscles. Fine granules of fat were also found, and some other larger fatty spheres, produced by the fusion of the small granules.

Microscopical examinations of the centrifuged liquid for tubercle bacilli were made; but the re-

sults were negative. Knowing that human chylous ascites, in warm countries, may be due to filariosis, the authors periodically examined the blood night and day, but found no embryos of filariæ. The cat's urine contained neither albumen nor cylinders.

Intra-peritoneal inoculations of 5 c.c. of the ascitic liquid were made into two rabbits and two guinea-pigs, without reproducing the disease. The two rabbits, however, died—one with an intense coccidiosis of the liver, and the other of a fatty degeneration of the liver.

Cultures of the ascitic liquid were made upon various media, both under ærobic and anærobic conditions. They remained sterile.

Post-mortem, the following lesions were found. The muscles were extremely emaciated, and the fatty tissue had entirely disappeared. The lungs were œdematous, and were strewn with small nodules, partially calcified. The heart was dilated, and in the right auricle were found some small whitish spots, representing a true fatty degeneration with calcareous infiltrations. The mucous membrane of the stomach showed a number of peptic ulcers. The liver was augmented in volume, and its lobes were constricted at several places by neoformations of peri-hepatitis. The gall-bladder was dilated; and a multitude of coccidia were found in its interior.

The spleen was augmented, and lobulated by neoformations of peri-splenitis. The peritoneum was affected by chronic peritonitis. Fibrous connective tissue neoformations were found upon the intestines. The lymphatic glands were enlarged, and microscopical examination of their contents showed the presence of coccidia. The kidneys were congested. The pancreas was much enlarged, and so were the supra-renal capsules. The thoracic duct showed nothing abnormal; the mesenteric lymphatic vessels, however, were more dilated than is normal.

From their observations, the authors conclude that the chylous ascites was directly caused by the coccidiosis, which had affected nearly all the organs. In some viscera, as the lungs and heart, the nodules were calcified; while in the liver and the lymphatic glands non-calcified lesions were found. The authors attribute the peptic ulcers to parasitic emboli, which had caused necrosis of the mucous membrane and its consequent digestion by the gastric juice. They suggest that the coccidia had played a mechanical part in producing the chylous ascites, similar to that played by filariæ—that is, that they had caused the dilatation and even the rupture of the lymphatic vessels, thus bringing about a chylous discharge into the peritoneal cavity.—(*Arhiva Veterinara*).

[No detailed description of these coccidia is given, nor is their species indicated. Neither is it quite clear that the coccidiosis from which one rabbit died was derived from the cat—nothing is said of the species. It is interesting to note that the authors remark that cases of chylous ascites are "very rare" "in human medicine," "quite exceptional" in veterinary medicine, and "*almost unknown*" in the cat. The words I have italicised may be a correct statement applied to Roumania, but certainly would not hold good in the case of some other countries, such as France and England. —*Transl.*]

Total Absence of Teeth in Dog.

Dechambre reports (*Bulletin de la S. C. de Méd. Vét. de Paris*) the following observation upon a thirteen-year-old toy terrier. He was able to observe the animal during life, and also to examine the skull after death. During life, the buccal cavity showed no particular abnormality of the gums, except the lack of teeth. The roof of the palaie, however, about 4-10th inch from its anterior extremity, showed two bucco-nasal fistulæ about 1-12th inch in diameter and 4-5th inch apart.

When the skull was examined post-mortem, no trace of teeth or of alveoli was found upon the superior maxillæ. The union of the two portions of the inferior maxilla had not been accomplished; and there was no osseous support for the arch of the incisors, The superior edges of the branches of the inferior maxilla showed traces of dental alveoli, in the form of small depressions with rugose bases.

Despite the lack of teeth, the dog had lived to an advanced age. His food had consisted of porridge and a little boiled liver mixed with crumbed bread.

The author remarks that this anomaly was due to an arrest of development, of which the canine species offers numerous examples, Certain breeds, such as the toy terrier, the Japanese dog, and the Brussels Griffon, preserve the fœtal form; and this conformation is only maintained by an arrest of development in certain bones, and notably in the maxillæ where the teeth are implanted.—(*Annales de Méd. Vét.*) W. R. C.

WESTERN COUNTIES VETERINARY MEDICAL ASSOCIATION.

The sixty-ninth general meeting was held at the Great Western Hotel, Taunton, on Thursday, Aug. 1st, when the President, Mr. R. J. Collings, Exeter, occupied the chair; other members attending included Messrs. P. G. Bond, Plymouth; Wm. Brown, Wiveliscombe; W. Graham Gillam, Minehead; P. Penhale, Barnstaple; C. E. Perry, Bristol; H. E. Whitemore, Langport; and W. Ascott, Hon. Sec.. Bideford.

The minutes of the last meeting were read and confirmed.

Apologies for inability to attend were read from Prof. F Hobday, Messrs. Bennett, Bloye, J. Dunstan, G. H Elder, Halley, Lydford, Olver, Wm. Penhale, Richardson, Saunders, G. Parker-Short, E. R. Smythe, and Thorburn.

Correspondence.—The Hon. Sec. read correspondence between himself and Mr. T. C. Toope, the Hon. Sec. of the South Eastern Veterinary Association as to the scale of fees allowed to veterinary inspectors by the Kent County Council.

Tenth International Veterinary Congress, London, 1914.

A letter from Mr. Stockman was read and carefully considered.

Mr. Bond (Hon. Treas.): Mr. President and Gentlemen,—Our Secretary has referred to me as Treasurer of this Association respecting our intention and our ability to subscribe to the forthcoming International Veterin-

ary Congress in 1914, and the question of a subscription towards it, as a result of the circular letter received.

Personally, I think that this question of an International Congress to be held in London on the jubilee anniversary of its formation is one of the most serious affairs connected with the veterinary science and art within my own recollection. I cannot help thinking that just now veterinary work has come to the parting of the ways; we must advance, and prove to the public our vital importance, or else ease off and drift to the wall, to be overshadowed in some of our best work by the sister profession. This Congress will be of great import to the whole of our members, and the success of it should be made certain by our giving it sympathy. It is a compliment offered to Great Britain by the veterinary profession of the world, to ask that the jubilee of the International Congresses should be held in London, in memory of its founder, John Gamgee.

There are numerous reasons why our Association should support it. We, as present members, look back with kindly feelings to the men who first formed the Western Counties Veterinary Medical Association in 1882. pioneers of a good work. The names of Gregory, of Bideford, Collings, of Exeter, Raddle, of Plymouth, Penhale, of Barnstaple, Parsons of Launceston, Olver, of Truro, who I am pleased to say is still with us, will be easily remembered. Why should we not carry on the work they began? Looking back at our old College days at Camden Town we do not forget the names of Robertson, Axe, Power, Penberthy, Tuson, and Shave. Why should we not strive to prove to some extent that we have not forgotten the interest they took in us? The men who have gone before acted with the best intentions: it was not for them to witness the result of their endeavours, but we must not forget them. At the head of the British Committee of the coming Congress we have the Principal of the Royal Veterinary College, as Secretary we have Mr. Stockman the Chief Veterinary Officer to the Board of Agriculture, and to support them we have gentlemen willing and able to do their best to make the Congress a success.

This Congress must be a success—there must be no doubt: and I hope every member of our Association will do his utmost to help.

I think that with care, and without unduly trespassing on our resources, we could very well afford to give thirty guineas towards the fund, that is, ten guineas now, ten guineas in 1913, and ten guineas in 1914. We have not a full attendance, but on such a matter there will not be, I trust, any objection. I have thought the subject over, and have come to the conclusion that it is our bounden duty to subscribe—it is our privilege—it is for the well being of our profession.

The West of England men do not usually take a back seat in any game worth playing. Our Association formed now 30 years ago is of a respeccable antiquity, and in the past our members have done, and in the present are still doing good work. I have enjoyed my life and work, and spent the greater portion of it amidst the scenery of our beautiful county. The world has not been unkind to me, amongst my professional brethren our intimacy has been cordial, our relations happy. I have never discovered the "rift in the lute" with regard to our friendships. I have been one of your members 25 years, your treasurer 10 years. In this matter also I have the hearty sympathy of my wife, she was the daughter of a veterinary surgeon, Charles Carter, of Guildford, himself descended from the old Norfolk family of veterinarians, fourth in direct succession. I I have often thought that a veterinary surgeon should have as a wife the daughter of a veterinary surgeon. I was fortunate in this, I have received splendid assistance and sympathy in my uphill work.

There is a great charm in self-denial. I must practise very closely what I preach. As an individual member of the Western Counties Veterinary Medical Association, through our Secretary, towards the fund now being raised for the International Congress, I have great pleasure in subscribing the sum of £52 10s. to be paid on the 31st January, 1913, and the same amount on the 31st January, 1914, *i.e.*, a total of one hundred guineas.

Mr. Ascott seconded Mr. Bond's motion "That the Association subscribe thirty guineas (spread over three years)," which was unanimously agreed to.

Presentation.

At the annual meeting it was unanimously resolved to mark in a tangible manner the valuable services rendered to the Association for many years past by the Hon. Sec., Mr. Wm. Ascott, of Bideford, and the matter was left to a small committee. A very pleasing feature of this meeting was the presentation to the Hon. Sec. of a microscope in mahogany case, with suitably engraved silver shield attached.

Mr. Ascott, in returning thanks, expressed his sincere appreciation of the more than kind feelings which had actuated the members in making the presentation, and assured them that this signal token of their esteem would always be regarded, not only by himself but also by his wife and family, as one of his most treasured possessions.

PRESIDENT'S ADDRESS.

Mr. R. J. Collings, M.R.C.V.S.

I thank you, gentlemen, for electing me your President for the ensuing year. I must apologise for my absence from the annual meeting at Exeter, in fact, I have not been able to attend very regularly recently, and have done nothing to merit the honour you have conferred on me.

With regard to the prospects of the profession, the Bill now before Parliament must go through it the Royal College is to stand and fight its own battles; it is impossible to carry on the work without financial assistance, but I am sorry to see its funds are being depleted more and more each year We should therefore strain every effort to get the Bill passed as early as possible.

I had not given the proposed International Veterinary Congress of 1914 very serious thought, before listening to Mr. Bond's remarks, but I now see its great importance from the public point of view. We shall have a number of talented gentlemen over from the Continent, whose deliberations will be followed with great interest, especially by members of our sister profession, the medical. It behoves every individual veterinary surgeon to lend the committee his hearty support and to subscribe as liberally as possible, for such an opportunity should not be allowed to pass without our trying to make it a stepping stone to the betterment of our profession. I have not prepared a set address, and I have little else to add. I hope my year of office will be as smooth and pleasant as those of the past, and I will do my best to grace the chair as my predecessors have done. I again thank you for the honour you have done me.

Motor Licenses and Petrol Tax.

Mr. Brown: I should like to bring before our members the subject of our treatment in the matter. I have recently purchased a car, and am surprised to find that I am treated neither as a medical man nor as a tradesman. We get no reduction in our license, and no rebate off our petrol. Doctors think they are very badly treated, but surely we are in a much worse position. I think a resolution from this Association might strengthen the hands of our Executive, and we ought as individuals to approach our local members of Parliament with the object of being placed on the same footing, at least, as our medical brethren. I beg therefore to move

a resolution to this effect, the same to be sent to the Chancellor of the Exchequer and to the Council of the Royal College of Veterinary Surgeons.

Mr. PENHALE: I approached our late member on this subject, and had he not been retiring, I think he might possibly have helped us, as he was quite of opinion that we were entitled to the same consideration as the medical profession, not because we were a branch of it, but for the same reason they were granted it, viz. the humane, and he was of opinion we might obtain it from that point alone, and not as medical men.

Mr. GRAHAM GILLAM: I think, Mr. President, the humane argument has been tried, but without success. I have much pleasure, however, in seconding the resolution moved by Mr. Brown. This was agreed to.

A FEW DRUGS—THEIR ACTIONS AND USES.

By PERCY PENHALE, M.R.C.V.S., Barnstaple.

Gum acacia. Makes a thick sticky emulsion, 4 parts of gum acacia to 6 of H_2O. Makes a nice cleanly plaster for dog practice.

Aconite. I always use Fleming's tincture. Have found its use beneficial in cases of pneumonia and laminitis, where the pulse is greatly accelerated. It slows and steadies the heart's action and soon gives a stronger pulse. If given well diluted horses will often take it in the drinking-water.

Dose: vℳ. to xv.ℳ horses.

Anasthene. This is a local anæsthetic prepared by Messrs. Wyley's and was recommended to me by Mr. Ascott. For minor operations a few minims injected at intervals around the site of operation produce complete anæsthesia; it also controls hæmorrhage. It has the advantage of being much cheaper than codrenine.

Antifebrin. A crystalline substance, like sodii salicylas. May be used in all febrile, such as influenza and pneumonia, for the reduction of the temperature. It also has a diuretic action, and is useful in cases inclined to dropsy.

Dose: ʒii. to ʒiv.

Apomorphine. A capital emetic for dog practice. It acts directly on the vomiting centre in the medulla, is very prompt in action and leaves no after effect.

1-10th to 1-5th gr. for dog, by mouth; Hydrochloride of apomorphine.

Arecoline. Like Esserine in action. A sialogogue, intestinal stimulant and purgative. If used in the early stages of acute laminitis, will give good results.

1 gr. Arecoline Hydrobromide, injected subcutaneously.

Arnica. Have found Tr. Arnica very useful in the treatment of canker in dog's ears. Some time ago I saw in foreign journal that it was used extensively on the Continent, in any suppurative diseases, given in 1 ʒ doses. I have tried it, but cannot speak of any marked effects.

Arsenic. This is a most useful drug.

Externally it has been found useful in the treatment of quittor, fistulous withers, poll evil, foot-rot in sheep and parasitic skin affections: largely used in sheep dips.

Internally. As a stimulant to appetite and a gastric tonic. Will increase the number of red blood corpuscles. As an alterative its action is very marked. In cases of broken-wind, chorea and epilepsy it may be used with great benefit. I find the most convenient form of administration is through the Liq. arsenicalis B.P. (Fowler's sol.) this contains 4½ grs. to the 1 ʒ. A quack once told me that given internally it was a certain cure for warts in either bullocks or horses. I have tried in one or two obstinate cases with complete success.

Dose: Horse, Arsenic albi ii. to vii. grs.; Liq. arsenicalis ʒii. to ʒi. Dogs, Arsenic albi grs. 1-20th to 1-10th; Liq. arsenicalis ℳ ii. to x.

Atropine. Atropine sulphate acts on all secretions by depressing them, especially on the salivary glands and on the intestines. It is a direct opposite to Esserine and Pilocarpin, and when these have a too marked effect on the patient, Atropine is very useful to control it. It is also an antidote to Chloral hydrate poisoning.

Dose: Horse, 1-13th to 1-5th of a grain.

Barium chloride. Used as a purgative. It derives its action from a stimulating effect on the muscular coat of the bowel. It may be given intravenously or in solution by mouth. It acts very quickly, and to my mind rather too violently. I have been told that it is not unlikely to set up intussusception of the bowel.

Dose, by mouth: ½ʒ to ʒii.; 7 to 20 grs. intravenously.

Betula. Sini Betulæ Co. Oil of sweet Birch, its active principle is Methyl salicylate. It is most beneficial in the external treatment of acute rheumatism, and in painful condition of joints it has a local analgesic effect.

Cloves. Oil of cloves. Useful in the treatment of "open joint" it is a powerful antiseptic and coagulates the synovia. A little injected into the wound once daily.

Calomel. Hydrarg sub-chloride. Have found in addition to its many other uses, that in the most obstinate cases of corneal opacity a little blown into the eye once daily will in most cases effect a cure. It has also been used with good effect on wind broken horses.

Prof. Dick: Digitalis, Opium, Camphor 30grs. each.

Extract of Cannabis Indica. Used a narcotic and anodyne. Quickly produces sleep and allays pain, the peculiar part being one cannot say, in different subjects, how long the sleep may last. I have seen the effects shaken off in six hours, and last as long as 48 hours with the same dose, ʒvi.

Chloral Hydrate. This, in my opinion, is the best drug we have in use as a hypnotic and anodyne, it does not interfere with the peristalsis of the bowels and may be given at the same time as a purgative. It is also a powerful antiseptic to the alimentary tract but should be given well diluted as it has irritant properties, it has a slightly depressant action on the heart which can be overcome by a hypodermic injection of strychnine.

Dose: Horse ʒi.

Chloroform. I am not going to give you in detail the action and uses of this drug, as it would occupy too much of your time, suffice to say that I have found it useful in dilating the os uteri. I administer it per orem in a pint of linseed oil; in cases where labour pains hinder rather than help one's work at some parturition cases it is also useful.

Cocaine. A local anæsthetic. In firing horses for ringbones have found it very easy to do if one injects about ʒi of a 10 per cent. solution right over the course of the plantar nerves. The same method is also very useful in diagnosing lameness of the foot.

Creasote. As a specific for dysentery and diarrhœa in calves: also prevents the formation of gases. It is dispensed in a very useful form by various druggists as Mist. Creasote Co., other constituents being Tr. opii, Catechu; chalk.

Corrosive Sublimate Pellets. 8·75 grs. These pellets are used in Australia as a preventative against epizootic abortion. Dissolve a pellet in three pints of water and syringe each in-calf cow or heifer with a pint of the solution once.

Digitalis. Tr. digitalis B.P. In cases of pleurisy with effusion which interferes with the heart's action, it makes it steadier, stronger, and slower. It is a drug

that must be carefully watched as it acts as an irritant to the mucous membrane of the alimentary canal and is liable to set up diarrhœa.

Dose: horse, ʒi. to v.

Dover's Powder or Pulv. Ipecac. Co. Pulv. opii and Pulv. ipecac. equal parts, to eight of Pot. sulphate. This powder is extremely useful in the treatment of distemper in dogs. Dose: i to v. grs. It is an expectorant, v. to xv. grs.: emetic in large doses, and a sedative in small doses.

Ergot. As you are well aware this is supposed to act by expelling the retained afterbirth. I have not much faith in it for this, but in cases where there is a form of septicæmia from absorption of the retained placental fluids, I find it useful to prevent this absorption.

Powd. Ergot ʒi.

Eserine. Derived from Calabar bean. Used as a purgative and derives its action from its increase of the secretions of all glands, it generally takes effect in cases of impaction in about 20 minutes. Is best used with Pilocarpin, Pilocarpin nitrate. Stimulates all secretory glands. Stimulates the involuntary muscles of the intestines and bladder, one therefore gets evacuations of the bowels. Messrs. Wyleys dispense very useful ampulae containing 1 gr. of Eserine, 1½ grs. of Pilocarpin nit. for hypodermic injection.

Fibrolysin. This is a preparation of Dr. F. Mendel. I have had very good results from the use of this preparation, in any cases of inordinate fibrous growth. Forty-three minims injected subcutaneously every day will soon shrink up a good-sized tumour. Its action is claimed to be systemic, although where practicable I always inject it as close to the enlargement as possible.

Iodopin. This is a German preparation, the active principle of which is Iodine. Sometimes one meets an occasional case of actinomycosis that does not yield to treatment by Potassium iodide. In such cases I can thoroughly recommend the trial of Iodopin.

Dose: Two drams injected right into the growth once a week.

Iodotan. This is a preparation manufactured by Messrs. Willows, Francis & Butler. They claim for it that it contains Iodine in an easily absorbed state. I have tried it with very good results in the treatment of curbs and splints.

Pulv. Lentil. I only mention this powder as I have found it so useful in cases where horses won't take medicines given in their food: a little mixed with it and they take it readily.

Nuclein. It is a product derived from yeast. Its action is to increase the number of white blood corpuscles. I have given this drug a fairly extensive trial in cases of pneumonia, and have had very good results from its use.

Dose: Injected hypodermically 10c.c. Nuclein, 10c.c. normal Saline.

Nux Vomica. Active principle Strychnine. Has all the active principles of Strychnine and, in addition, it increases the digestive juices, stimulates the movement of the stomach and promotes appetite. In the bowels it increases the peristaltic action, and is thus useful in cases of constipation and impaction. Extremely useful in cattle practice.

Dose: ʒss to ʒii.: horses and cattle.

Podophyllum. A powerful cathartic and chologogue. It is the latter action I wish to speak of, in cases of stoppage where liver trouble is indicated by a yellowish appearance of the mucous membrane of the eye. ʒi to ʒii. given with another purgative will be found most beneficial.

Pyrethrum. This is a brown powder and supposed to be the active principle of Keatings.' For killing lice and fleas in dogs it is a specific A little should be dusted over the dog's coat and thoroughly brushed in.

Quassia. Infusion of Quassia, 1 to 100 of cold water; vermicide. Useful for destroying whip worms in the rectum of horses—inject a pint every other day. (Oxyurus curculi).

Stavesacre seeds. I only mention this to draw your attention to the method of preparation as an external parasiticide for lice and fleas. The seeds ought to be well powdered and a decoction made by boiling with water ʒi. of bruised seeds to Ois of water well boiled for at least an hour. Care should be taken that the skin is not abraided or absorption takes place, and I don't think it is generally known that poisoning symptoms may follow.

Strychnine. Liq. strychnine B.P. Dose: hypodermically ʒi. to ʒii., repeated single dose up to ʒiv. for horses. It is very quickly absorbed after injection and stimulates the spinal cord. On animals that have got down weak after any debilitating disease, I have found its action most marked. It is customary to give very small doses to dogs, as some are very susceptible to its action. For dogs I prefer using Easton's syrup which contains in each fluid dram Phosphate of iron 1 gr., Quinine 4-5th gr., strychnine 1-32nd gr.

Dose: up to 1 dram.

Oleum sinapis. I have been using this recently as a counter irritant in diseases of the chest such as pleurisy and pneumonia when they hang fire. It acts quickly and is very penetrating. In milk fever cases I have it rubbed into the loins and poll about the fourth hour after injection—as a result the cow is generally on her legs a few minutes after the application.

Thymol. In crystals which resemble soda hyposulph. Very good as a vermicide for strongylus armatus in colts. I generally give grs. xv. doses daily, dissolved in spts. vini. meth. or glycerine, and followed in a week's time by a purgative.

Oleum terebinthae. A very old-fashioned drug but is still able to hold its position in the Pharmacy. Its action is multiple. As a vermicide I do not know of any drug that is more effective. I use it extensively in my practice for the following purposes, viz.: As a gastro-intestinal stimulant, an antispasmodic, an antitympanitic, a diuretic and in the latter action it stimulates the heart as well as the kidney, for this reason I use it combined with iron in the treatment of Redwater in cattle which is prevalent in some districts. I have also found it a very good active principle in Intratracheal injections for horse or calves, in ʒii. doses along with Ac. carbol. ℥xx. and Tr. opii. ʒi.

Veterinary Surgeon Charged with Cruelty

John Thomas Firr, M.R.C.V.S., late of Horsham, appeared on remand, charged with having, on 15th June, at Slinfold, performed certain operations upon three colts without due care and humanity. Mr. Pothill prosecuted on behalf of the R.S.P.C.A., and Mr. Roger Henwood appeared for the prisoner.

Ezra James Welford, farm bailiff to Mr. Burroughes, of Clemsfold, deposed that on 15th June the prisoner arrived at Clemsfold to operate on four animals. Witness assisted prisoner, who first operated on a two-year-old. Witness, holding the animal, could not see how prisoner was operating at the time. That animal was now quite all right. Subsequently three yearlings were operated upon. The animals struggled a great deal. There seemed to be nothing wrong with the prisoner's condition at the time.

William Beneyworth, cowman, who also assisted, gave evidence.

Mr. Frederick Walder, M.R.C.V.S., Crawley, said he was called to the farm on the evening of 15th June,

when he examined the three yearlings. Witness described the condition of the animals. The method adopted by the prisoner was still a recognised one. With due care the injuries found would not have happened.

Mr. Alexander Piesse, M.R.C.V.S., Chief Veterinary Officer to the R.S.P.C.A., having given a description of the operation, said of the results of these operations it did not seem to him conceivable that a man with a clear mind could possibly have done as had been done in these cases. It was no accident.

Cross-examined: It did not seem conceivable even with much struggling such results would have happened with one animal, let alone three.

In stating his case, without calling evidence, Mr. Henwood commented on the fact that Mr. Burroughes had taken no part in the prosecution. Prisoner recently had not been in a very good state of health, having been suffering from insomnia. He was a son of the late renowned Tom Firr, huntsman to the Quorn Hounds. Mr. Henwood handed in certain papers, the contents of which were not made public, and he strongly appealed to the Bench to extend mercy to the prisoner and not to blight a young man's professional career.

After consulting in private the Chairman said there was no doubt, whatever might have been the condition of the prisoner, mentally or otherwise, he had caused the most horrible suffering to these unfortunate colts, and in this case the Society were not only perfectly justified, but were only doing their duty in bringing the matter before the Court. The Court could not do less than inflict a penalty of £10 and £2 13s. 6d. costs, or one month's imprisonment.

Mr. Henwood intimated that the fine would be paid. —*Sussex Daily News.*

Veterinary Dispensaries.

Sir,—In the last issue of the *Gazette* I notice a letter from a correspondent in Queen's County *re* Veterinary Dispensaries, in which it is stated that the writer had been told that those established by the Department have not been made much use of. I took the trouble of making some inquiries into the matter in the Department's offices, and was shown a copy of their last published annual report, in which it is recorded that up to September last there were twenty-seven vets. employed in congested counties, attending fortnightly at 104 dispensary centres, at which 6309 cases had been treated, in addition to which there were 3163 visits paid by the vets. to farmers' residences. The scheme is limited, I believe, to farmers under £10 valuation who reside in congested counties. These figures in my opinion prove that your correspondent has been grievously misinformed, I was further informed at the Department's office that since the report in question had been issued four additional vets. had been put on to this work, and consequently the number of dispensary centres increased. In reply to an inquiry as to why the scheme was not extended to the whole country, I was told that there was some legal difficulty as regards the spending of the Department's funds or the county rates on such a purpose. The money for the scheme at present in operation is supplied to the Department by the Congested Districts Board.

The suggestion of having compulsory veterinary dispensaries free to all may, I think, be dismissed as being outside the pale of practical politics, just as much as would be the more useful but equally impracticable idea of providing free medical attendance for everybody in view of the ravages of consumption among the residents of some parts of Ireland.—Yours, etc. J. D.

DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax. Outbreaks Confirm'd	Anthrax. Outbreaks Reported	Anthrax. Animals Confirm'd	Anthrax. Animals Reported	Foot-and-Mouth Disease. Outbreaks	Foot-and-Mouth Disease. Animals.	Glanders † (including Farcy) Outbreaks	Glanders † (including Farcy) Animals.	Parasitic Mange. Outbreaks	Parasitic Mange. Animals.	Sheep Scab. Outbreaks	Swine Fever. Outbreaks.	Swine Fever. Slaughtered. *
GT. BRITAIN. Week ended Aug. 17	5		5		3	25	1	3	24	39		40	427
Corresponding week in 1911	11		16				4	4				37	582
Corresponding week in 1910		26		31			12	32			1	26	132
Corresponding week in 1909		22		25			7	23			1	28	163
Total for 33 weeks, 1912	550		626		66	394	119	231	2320	5097	170	2154	27958
Corresponding period in 1911	548		635		7	420	124	302			306	1696	19937
Corresponding period in 1910		951		1152	2	15	237	745			332	953	8556
Corresponding period in 1909		870		1155			361	1333			465	1197	10567

† Counties affected, animals attacked: Derby 1, Durham 2.

Board of Agriculture and Fisheries, Aug. 20, 1912.

									Outbreaks			
IRELAND. Week ended Aug. 17	...	...	5	5	...	...	1	...	3	5
Corresponding Week in 1911 ...	...	...	...	...	...	...	4	...	5	30
Corresponding Week in 1910 ...	...	...	...	...	...	...	3	1	2	15
Corresponding Week in 1909 ...	...	...	...	...	...	...	...	...	2	19
Total for 33 weeks, 1912 ...	3	3	21	208	...	...	50	263	170	1432
Corresponding period in 1911 ...	7	12	...	...	2	3	49	250	89	1507
Corresponding period in 1910 ...	5	8	...	...	1	2	48	346	71	1673
Corresponding period in 1909 ...	5	5	...	...	...	...	63	305	80	1345

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Aug. 19, 1912

NOTE.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infection

A New View of the Origin of Pellagra.

At first sight it seems extremely unlikely that there can be any connection between blackbirds and the spread of pellagra, but the opinion has been recently expressed that there is a probability that certain migratory birds, and more particularly blackbirds, are acting as reservoirs of the virus of pellagra, and that the actual parasite of the disease will in all probability turn out to be a trypanosome. Dr. M. L. Ravitch, of Louisville, Kentucky, who has had the assistance of Dr. Eisenman, the Kentucky State veterinarian, and of Dr. Purdy in his investigations, states that in certain local areas where pellagra cases have been somewhat numerous a pellagra-like disease has also been found among horses and cattle. Some horses died with symptoms similar to those caused in South America and other tropical countries by trypanosoma equinum. These local areas are also said to have been infested by migratory birds, more especially blackbirds, which arrive in large numbers from the sunny south in the spring time and depart in the autumn. It appears also that Novy and McNeal, in their work on trypanosomes, found these protozoal parasites in the blood of migratory birds, and among these they placed blackbirds first on the list. It is admitted that there are difficulties in classifying the different species of trypanosomes arising from the fact that the same species in an animal host often presents many varieties, and these in other circumstances would most probably be regarded as being different species. It is surmised that mosquitoes or flies may act as transmitters of the pellagra virus to man and animals, but whether part of the cycle of development of the parasite follows the biting of the blackbird by the infected insect is not yet known. We are told by Dr. Ravitch that in the above-mentioned areas there has been of late years an unusual plague of flies, and it was observed that where measures were taken to reduce the number of these insects there was less pellagra, and on the other hand where these measures were neglected there were more attacks. The conclusion reached by Dr. Ravitch and his co-workers is that blackbirds, and perhaps some other species of migratory birds, are responsible for the spread of pellagra. We gather that the suggestion is that the birds are infected in South America or some other tropical country and bring with them in their blood the infection to the United States where the local flies or mosquitoes act as transmitters of the virus obtained from the birds. The actual transmission may occur in one or other of the following ways: either by bites of flies or mosquitoes, or by accidental ingestion of the cysts of the parasite deposited by the insects upon leaves of plants. No trypanosomes, it is admitted, have yet been found in the blood of pellagra patients or in the blood of animals suffering from the pellagra-like disease, but Dr. Ravitch says that the indications are that from such blood some species of trypanosome will be isolated in the near future. This view of the etiology of pellagra is both novel and interesting, but it cannot be said that as yet it is supported by much solid evidence. Whether further inquiry will bring forward this necessary support remains to be seen. Meanwhile, we refrain from further comment, awaiting the results of the fresh investigations which, we are told, are now being carried out.—*The Lancet.*

Colloidal Metals.

Waclav v Biehler (*Wien. klin. Runds.*, Nos. 43 and 44, 1911) discusses the methods of obtaining the properties, and the uses in medicine of the so-called colloidal metals or inorganic ferments which are able to call forth the same reactions as the organic ferments. A metal passes into the colloid state when it is broken down into minimal parts by means of electric sparks passes through fluid between electrodes of the metal, the particles forming an emulsion in the fluid. Colloidal metals can also be artificially obtained chemically, but Bordet, Netter, and other workers have shown that only the ones obtained by the electric method, and not those by the chemical method, have actions similar to those of organic ferments. According to Robin and Bordet, the action of metal ferments on the human organism is to call forth a general strengthening of the chemical processes identical with that due to organic ferments. They possess also bactericidal properties. Von Chabrin found that colloidal silver prepared by the electric method may have a bactericidal power several million times stronger than that of mercury salts. Different workers have shown the bactericidal efficacy of colloidal silver with respect to *Pneumococcus B. coli*, *Staphylococcus aureus* and *albus*, etc., and have also shown that the same changes which result from an injection of 5 to 10 c.cm. of colloidal silver also follow the injection of 10 to 20 c.cm. of normal horse serum, anti-diphtheritic serum and lacto-serum. On the ground that metal ferments increase the chemical reactions of the organism, Robin has given injections of colloidal metals in diseases such as rheumatism and inflammation of the lungs, with encouraging results. In one case of diphtheria the result of the injection of a solution of colloidal gold was similar to that of anti-dipththeritic serum. The injections were made under the skin of the abdomen or flank The preparations employed were obtained from the clinical laboratory in Paris; each ampulla contained 5 c.cm. of an isotonic solution of the colloidal metal. No reaction of the skin was observed, and there was hardly any pain. In the case of pyaemia following an abortion the customary methods failed, and the condition was very bad, when on the tenth day the patient came under the author's care and subcutaneous injections of colloidal silver were begun. The condition improved gradually during four days, in which 40c.cm. were injected in all; recovery followed.

Quackery.

Some statistics regarding quackery in Germany appear in *The British Medical Journal*, 11th May, 1912:—

In 1869 the number of quacks in Berlin was 28. In twenty-four years this number had risen to 1,013, while the quacks practising in the whole of Prussia was 5,148. In certain districts the unqualified outnumbered the qualified practitioners—the ratio of two to one. In Saxony the number of quacks rose from 323 in 1874 to 1,001 in 1903, exclusive of 945 unqualified dentists. Graack in 1906, using official statistics, estimated the number of quacks in Prussia at 10,000 and predicted a further increase. . . . There are 835 societies for the duty of "nature healing" with a total membership of 112,000. . . . There are over fifty quack periodicals, the circulation of some of which exceeds 100,000 copies.

This state of affairs has led to the formulation of definite schemes to amend the law. The most important reforms proposed are the supervision by the authorities of unqualified medical practitioners and veterinary surgeons, and the prohibition of treatment at a distance, mystical treatment, the treatment of quacks of such diseases as small pox and cholera, venereal diseases, and cancer. It is proposed also that treatment by hypotism, and treatment which requires general anæsthesia or subcutaneous or intravenous injections shall be prohibited, and that the authorities shall be vested with extensive powers to deal with those quacks whose treatment threatens the health or life of man or beast.

In the same number of *The British Medical Journal* we are told that the present advertising expenditure by owners of Proprietary Articles in this country is esti-

mated at two millions a year; morning newspapers, it is said, derive at least one-third of this revenue from the advertisement of proprietary articles, the evening and weekly papers, it is said, receive a half, or even three-quarters of this income from this source.

The Septic Cricket Ball.

The following letter from *The Brit. Med. Jrnl.* is a protest against the neurotic tendency to magnify the Bogey of microbic infection.

Sir,—The silly season has evidently begun, in the medical as well as in the lay press. Our hair rises with terror when we think of the awful calamities which may befall us if we indulge in a sporadic game of cricket, and our thanks are due to the writer of the above-named leader for his timely warning.

The majority of bowlers lick the tips of their fingers before delivering the ball, whether professionals or amateurs, but has one single instance ever been recorded where lockjaw has been traced to this rash procedure? We are relieved to hear that there is at least one member of our profession who is not afraid to do likewise and who does not play the game of cricket as though he were performing an aseptic surgical operation.

As for the "pallid, corkscrew-like microbe of another terrible disease" which may infect us—well, if we limit our risks to its acquaintance on cricket balls, we shall not fare badly. Even a butter merchant can be killed by a thunderbolt.

We do not wish to deny the value of preventive medicine, but for Heaven's sake let us remember that there is a limit in all things. Perhaps an enthusiast would like to see our national game played in sterile overalls, the ball painted with tincture of iodine after every over, and each individual player previously examined for signs of specific disease by a cricketing medical officer of health.—I am, etc. G. Lowell Webb.

ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

War Office, Whitehall, Aug. 13.

Regular Force. Army Veterinary Corps.

Lieut. A. S. Lawrie to be Capt., with precedence next below Capt. V. C. Leckie. Dated Oct. 11.

Territorial Force. Army Veterinary Corps.

E. M. Perry (late Maj. 2nd Home Counties Brigade R.F.A.) to be Major. Dated June 5.

OBITUARY

Thos. Joseph Norton Critchley, M.R.C.V.S., Carlisle. Graduated, Edin: May, 1910.

Mr. Chritchley died on Aug. 15th, at The Green, Wetheral, Cumberland, from peritonitis, following duodenal ulcer. Aged 29 years.

CORRESPONDENCE.

The Testing of Cattle for Tuberculosis in Animals for Exportation to South America.

Sir,

Permit me through the medium of your widely circulated paper to call the attention of breeders and exporters of pedigree cattle to the absolute necessity of testing all cattle before shipment, and that of those veterinary surgeons who are called on to apply these tests, to the importance of taking every precaution not to pass any animal which is even only slightly suspicious. Here, all bovines coming from Europe are subjected to a very rigorous tuberculin test after quarantine, and every animal which reacts is slaughtered, and the carcase burnt, the owner getting no compensation.

Recently, I was asked to attend on behalf of the consignee, five post-mortems on pedigree shorthorn bulls imported from Scotland; in every case the lesions of tuberculosis were well marked, and in four of them they were of old origin. The animals slaughtered were of very good class; the price paid for one of them in Scotland was 950 guineas.

Of course, for the present the ports are closed, owing to foot-and-mouth disease, but in the event of their being re-opened there will still be a demand here for good breeding animals free from tuberculosis, but to avoid disappointment and loss no animal should be shipped till it has passed a severe test. I think the animals should be isolated under the observation of the veterinary surgeon for some time before he applies the test, to avoid their being tampered with. The ophthalmic test is used here, as well as the hypodermic, and gives good results. The rejection of so many animals with good cause by Argentine veterinary surgeons after they have been passed at home is not calculated to give the British veterinary profession a good name abroad.

Buenos Aires. Alfred Marston, M.R.C.V.S.

THE ANÆSTHETICS BILL.

Sir,

I am a town practitioner, have not castrated a horse for many years, and probably never shall castrate another.

The question as to whether or not the standing operation ought to be prohibited does not affect me personally at all: but I always feel highly amused when I hear its advocates acclaiming it, as Mr. Patrick does in your current issue, as the most *humane* method of castration. This much may be said for it on the score of humanity, as compared with other methods practised *without* an anæsthetic—that given an adept operator, it is undoubtedly the quickest of all. But to characterise it as more humane than the operations with iron or écraseur *under chloroform* is really rather too much.

I expect next to be told that horses like being castrated if they can undergo it on their feet, and that it is cruel to deprive them of the pleasure of the process. I believe that some standing operators, now that they see their acrobatic accomplishments endangered, are capable of saying even that in defence of it.

Seriously, there are just two solid reasons for preferring the standing operation to other methods. One appeals solely to practitioners—qualified or unqualified—who are expert at it; the other, to them and their employers alike. The first is that, in many districts, the man who can and will castrate standing enjoys a great advantage over others who cannot. The second is, that the standing operation demands less time and trouble from the operator and the attendants, provided of course that the former is skilful. Both are good reasons so far as they go—but are they the sort of considerations that ought to be paramount in the eyes of a learned profession?—Yours faithfully,

"Townsman."

Sir,

Whilst every humane person welcomes the introduction of a Bill for compelling owners of animals to have a painful operation performed on their animals *only* when under the influence of an anæsthetic, it appears very strange that the veterinary profession was not consulted beforehand as to what should be considered painful operations necessitating chloroform, or what operations should be scheduled in the Protection of Animals (Amendment) Bill.

One cannot say the profession has taken any active steps in promulgating this or any other humane bill; but experience has shewn that a good deal of the opposition against such measures have come from veterinary surgeons themselves. The public have nearly always led the way and demanded reform.

As the Bill now stands it seems, in some of its clauses at least, to be very ambiguous, which, no doubt, would have not been the case if the proposal had been first submitted to the Royal College of Surgeons, which appears to have been ignored.

The last paragraph in *Section* 2 of *Clause* I seems to me to require recasting. It says:

"No bull or pig shall be subjected to an operation for castration after the age of six months, *unless the operation is performed for the purpose of curing or alleviating some disease or the effect of some accident.*"

From this one might reasonably infer that a bull or a boar after six months of age could be castrated, without an anæsthetic, with the object of curing pneumonia, foot-and mouth-disease or a broken leg.

Why line-firing should be included and point-firing omitted as a painful operation is inexplicable.

The poor cat is exempt from the benefit of this Bill, yet everybody knows what torture this maligned creature is subjected to by cat's meat men and others, in the operation of castration.

It appears this proposed Act does not allow a Member of the Royal College of Veterinary Surgeons any discretionary powers! The Board of Agriculture and Fisheries is to say what is to be done.

In conclusion, I think many improvements in this Bill might be suggested by the R.C.V.S. but trust no member of the veterinary profession will be so narrow-minded as to oppose it on the ground that "castration standing" is not such a painful operation as castration under an anæsthetic. Certainly chloroform is comparatively easy in application and once we are compelled to adopt anæsthetics in the majority of painful operations we shall be wise and say why didn't we always use them before we were compelled by law.

HUMANITAS.

Sir,

Mr. E. Patrick's letter in the issue of your paper this week interests me. I wonder whether he would consider it impertinent if I asked him to enlarge upon it.

He says he is "perfectly satisfied as to the vast superiority of the standing operation and considers it distinctly humane in comparison with the process of casting and operating with iron or écraseur—chloroform included."

I simply wish to know (if it would not trouble him too much to explain) his reasons for considering the operation, more humane without than with the administration of chloroform,—Yours faithfully,

WALTER BURT.

Sir,

From letters that are now appearing in your weekly paper there seems to be no doubt that that the introduction of the above Bill is arousing considerable interest among our profession.

I would like to ask if such an important Bill as the above would have been entertained by our medical *confrères* without some advice having been first sought either from the British Medical Council or else from the medical profession as a whole. We have no better instance of this than the way in which the present Government has treated the medical profession in regard to the Insurance Act, in which, so far as I can see, they will eventually, if not getting practically their own terms, get it considerably altered from its present form.

In the case of the medical profession is not the use of anæsthetics for operations left entirely at the discretion of the medical practitioners? Why, therefore, should not this be so in our own case? Surely the veterinary surgeon himself is the best judge, and should know best as to whether or not the use of an anæsthetic is necessary for any operation, without it being made compulsory on his part to use one.

As the Editor of *The Veterinary Record* has already pointed out to us in his Editorial note that the Bill, if passed, will not (as no doubt the movers of the Bill suppose) altogether revolutionise veterinary surgery as at present practised in this country, for the use of anæsthetics for the operations mentioned in the Bill is practically universally adopted whenever the practitioner thinks it necessary. In some of the operations mentioned it is not always necessary. I therefore fail to see why the use of anæsthetics even for these operations should be made compulsory.

If, however, it should be made compulsory, I should like to see added to the list parturition; this is an instance when I do think an anæsthetic might be used more than it is at the present time.

There is one operation included in the Bill which, if passed, will not, I am afraid, meet with the approval of many veterinary surgeons, and that is the operation of castration, for it seems to me that we shall not then be allowed to castrate horses in the standing position, a method which is more or less universally adopted at the present time, and a method which does, in my opinion, possess considerable advantage over that of any other.

I am not going to take up your valuable space by discussing the *pros* and *cons* of the method. In *The Veterinrry Record* of August, 1910, I gave some reasons why I consider this method possesses advantages over any other. I may here say that during the past 11 years I have, in different parts of this country, castrated standing over 3000 horses of all ages; and whether the present Bill comes into force or not I shall still continue to think that this method possesses many advantages.

We must also consider, if only a little, the views possessed by the general public, for I am afraid that if the Bill is passed and the castration standing method becomes unlawful it will be very much resented by not a few of the breeders of horses in this country.

The public at the present day are not slow to appreciate what they consider to be the safest and best method for any operation upon their animals, and surely since they are the owners of the animals they ought to have a little to say in the matter. I indeed vouchsafe to say that there are very few trainers of horses in this country who will allow their horses to be cast for this operation.

I have frequently heard it said that one requires to be an acrobat to perform the operation of castration standing; this however is not my experience. When one can get into a loose box or open farm yard and simply with the aid of a twitch (frequently without) and halter, and no other means of restraint whatever perform the operation in a few minutes, I fail to see where either the cruelty or acrobatic features of the operation come in.

I should very much like to see some of those veterinary surgeons who strongly advocate chloroforming horses standing to be in the position I am frequently placed, viz. to castrate ten to twenty colts in one farm yard (many of which have never been haltered before) put on the chloroform muzzle when the colts are standing. They will then, perhaps, begin to realise that it is not all honey chloroforming horses standing; at any rate my experience is that you generally want to have them in a ten acre field, for one can never tell how, when and where the animal is going to fall. I consider it not only dangerous to the operator but also to the horse.

Another important point in connection with the Bill as it now stands is, that it does not prohibit the operations mentioned being carried out by other than veterinary surgeons. So long as the use of chloroform is enforced why should not others perform the operation as well as ourselves.

No doubt the movers of the Bill have at some time or other been unfavourably impressed with the methods of present day veterinary surgery. Perhaps, however, the Bill is only another preliminary move on the part of anti-vivisectionists.—Yours faithfully,

C. W. TOWNSEND, F.R.C.V.S.

CERTIFICATE OF DEATH IN CATTLE.

Sir,

I was pleased to see an opinion expressed that all cattle which die from disease ought to be accompanied with a certificate, whether attended to by a M.R.C.V.S. or not. The certificate ought to be in duplicate, one part kept by the M.R.C.V.S. and the other given up to the knacker, to be collected at the week end by the police. No person should be allowed to make out a certificate unless he is a qualified veterinary surgeon. It would soon put an end to the slink beef trade, and what is more important one would get an exact idea of the number of tuberculous cows and the districts in which they die yearly.

In my opinion the foot-and-mouth disease from Swords could not have spread as it did had a certificate of death from the disease been given with the first cow that died. The veterinary surgeons would have been put on their guard at once, and no doubt would have prevented it from entering England and saved the thousands of pounds it has cost.

Our cities ought not to take carcases in from outside unless accompanied by local veterinary surgeon's certificate, and the police should not let carcases be removed at night or day unless accompanied by a M.R.C.V.S. certificate stating whether fit for food or diseased.—Yours, etc.,

"LOOK OUT."